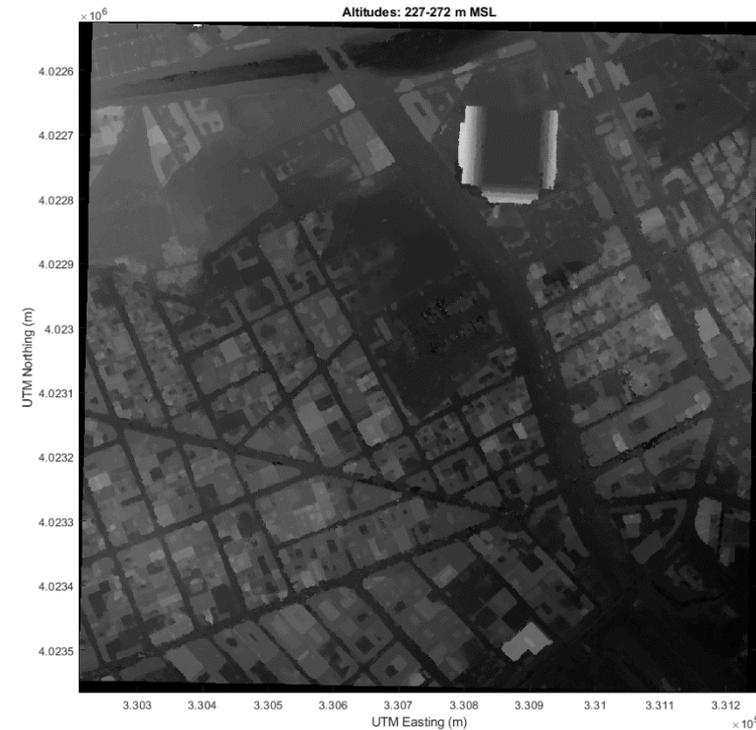




Overview

- Toyon Research Corp.
 - Small Business (200 employees) defense contractor
- Looking to join or form a team for WRIVA as either a subcontractor or a prime contractor
- Capabilities specifically relevant to WRIVA:
 - High quality 3D model reconstruction using small numbers of images
 - Solutions optimized for satellite-based, UAV-based, vehicle-based, and indoor handheld sensor images
 - DoD customer-supported experience specific to image-based site modeling
 - Few overlapping images or a single image per surface to be modeled
 - Both overhead and indoor imagery
 - Image 3D geo-registration and co-registration
- Additional related capabilities:
 - Artificial intelligence for image and video processing
 - Experience with 3D model texturing and rendering

- Novel algorithms:
 - Proprietary Bayesian algorithm for near-optimal remote sensing image processing
 - Rapid 3D reconstruction using a combination of AI/DNN and classical multi-view geometry techniques
- Proven capabilities:
 - Toyon-developed software product available for commercial satellite image processing
 - Capable of cross-satellite and cross-track image processing
 - Forms 3D models using a minimum number of opportunistically available images
 - Experience with Predator/Reaper, small UAV, and other DoD and commercial sensors
 - Demonstrated experience with site modeling applications (both indoor and overhead imagery)



- Overhead imagery:
 - 3D model reconstruction and building semantic segmentation for mission planning and mission rehearsal applications
 - 3D change detection and building damage assessment for HADR applications
- Indoor still images
 - Developed algorithms for site surveying, modeling, and 3D walk-through for cases in which as few as one image is available for each room or surface to be modeled

